

### LITTLE COLORADO RIVER BASIN

#### 09384000 LITTLE COLORADO RIVER ABOVE LYMAN LAKE, NEAR ST. JOHNS, AZ

**LOCATION**--Lat 34°18'52", long 109°21'42", in SW<sub>1/4</sub>SE<sub>1/4</sub> sec. 27, T.11 N., R.28 E., Apache County, Hydrologic Unit 15020001, on left bank 0.75 mi downstream from Coyote Creek, 6 mi upstream from Lyman Dam, and 15 mi south of St. Johns.

**DRAINAGE AREA**--706 mi<sup>2</sup>, of which 2.5 mi<sup>2</sup> is noncontributing.

**PERIOD OF RECORD**--Apr. 1940 to current year. Prior to Oct. 1975 published as "above Lyman Reservoir."

**REVISED RECORDS**--WDR AZ-88-1: Drainage area.

**GAGE**--Water-stage recorder and crest-stage gage. Elevation of gage is 6,010 ft above sea level, from topographic map. Prior to Dec. 7, 1976, water-stage recorder at site 0.4 mi downstream at datum approximately 20 ft lower, used as supplemental gage Mar. 21, 1980, to Apr. 21, 1987. See WSP 1313 for history of changes prior to 1950.

**REMARKS**--Records fair for estimated daily discharges, which are poor. Flow regulated by many small reservoirs—combined capacity, about 15,500 acre-ft. Diversions for irrigation of about 6,700 acres above station.

**EXTREMES FOR PERIOD OF RECORD**--Maximum discharge, 16,000 ft<sup>3</sup>/s July 25, 1940, gage height, 17.1 ft, datum then in use, from floodmarks, by slope-area measurement of peak flow and reservoir inflow studies; maximum gage height, 18.6 ft, Sept. 12, 1975, at previous site (from graph recorded to 18.4 ft); no flow at times.

**EXTREMES FOR CURRENT YEAR**--Peak discharges greater than base discharge of 400 ft<sup>3</sup>/s and (or) maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
July 31.....	2230	*398	*4.61

Minimum daily discharge, 0.01 ft<sup>3</sup>/s for many days.

#### DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	2.4	4.6	e4.2	2.6	5.0	23	9.7	19	0.03	24	22
2	2.9	2.4	4.7	e4.2	2.6	5.0	28	14	17	0.03	38	18
3	3.1	2.2	6.3	e4.1	2.5	4.8	40	15	17	0.03	9.9	15
4	3.1	2.4	6.2	e4.1	2.4	4.4	30	13	15	0.02	2.6	12
5	3.3	2.6	5.4	e4.1	2.7	4.9	22	13	14	0.01	1.4	11
6	2.7	2.8	4.7	e3.9	2.5	4.9	19	13	11	0.02	1.6	18
7	2.2	2.9	4.4	e3.7	2.4	4.4	18	12	8.5	0.01	6.6	16
8	3.0	2.9	4.1	e3.5	2.7	3.9	17	8.0	7.4	0.01	4.1	13
9	3.1	3.4	4.1	e3.3	2.8	3.6	18	8.5	7.9	0.01	3.1	12
10	3.3	5.6	4.1	2.9	2.8	3.8	19	12	9.0	0.01	4.5	14
11	3.2	5.9	4.0	2.9	3.0	4.4	18	11	4.8	0.01	3.2	24
12	2.9	6.9	e3.8	2.8	3.1	5.5	16	7.8	3.7	0.01	2.3	25
13	2.9	4.9	e3.7	2.7	3.2	6.4	16	5.9	4.4	<0.01	3.1	22
14	3.0	4.2	e3.7	2.8	3.7	7.4	14	5.3	4.1	<0.01	8.2	20
15	2.8	4.0	3.8	2.9	4.9	7.7	12	3.5	3.4	<0.01	10	17
16	2.9	4.0	3.8	2.7	5.1	8.5	13	2.7	4.0	<0.01	8.6	10
17	2.8	4.2	4.1	2.7	4.5	9.0	25	3.0	4.2	<0.01	9.9	4.5
18	3.1	4.0	e4.3	2.7	4.5	10	27	3.3	3.5	<0.01	11	2.4
19	3.2	4.1	e4.2	2.8	4.2	10	21	3.5	1.5	<0.01	9.3	2.0
20	3.1	3.9	e4.2	2.8	4.4	9.6	18	3.1	1.7	<0.01	11	1.6
21	2.9	4.1	e4.2	2.9	4.9	8.6	16	3.5	1.2	0.01	16	1.2
22	3.0	3.8	e4.2	2.9	4.3	10	14	2.9	0.91	0.01	15	1.6
23	2.8	4.1	e4.5	2.9	3.6	9.6	14	3.6	0.20	0.01	17	0.74
24	2.5	4.1	e4.5	3.0	3.5	10	12	3.6	0.10	0.01	14	1.1
25	2.3	4.1	e4.2	2.8	3.4	12	12	9.7	0.07	0.01	14	1.1
26	2.3	4.1	e4.1	2.6	4.2	13	10	16	0.06	22	12	0.43
27	2.7	4.2	e4.2	2.6	4.5	16	8.2	18	0.12	0.55	16	0.30
28	2.8	4.2	e4.3	2.6	5.1	21	7.1	18	0.07	6.3	23	0.38
29	3.0	4.2	e4.4	2.5	---	20	5.0	18	0.08	13	49	0.48
30	2.8	4.5	e4.4	2.5	---	18	7.4	17	0.06	1.0	35	0.30
31	2.7	---	e4.2	2.5	---	17	---	18	---	20	27	---
TOTAL	88.9	117.1	135.4	95.6	100.1	278.4	519.7	295.6	163.97	63.18	410.4	287.13
MEAN	2.87	3.90	4.37	3.08	3.58	8.98	17.3	9.54	5.47	2.04	13.2	9.57
MAX	3.3	6.9	6.3	4.2	5.1	21	40	18	19	22	49	25
MIN	2.2	2.2	3.7	2.5	2.4	3.6	5.0	2.7	0.06	0.01	1.4	0.30
AC-FT	176	232	269	190	199	552	1030	586	325	125	814	570

#### STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2003, BY WATER YEAR (WY)

(WY)	1984	1987	1979	1942	1962	1985	1979	1941	1973	1967	1955	1946
MEAN	0.074	0.32	0.83	2.08	2.84	1.89	1.26	0.44	0.010	0.000	0.59	0.017

#### SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1941 - 2003

ANNUAL TOTAL	1270.99	2555.48	
ANNUAL MEAN	3.48	7.00	
HIGHEST ANNUAL MEAN			21.7
LOWEST ANNUAL MEAN			71.6
HIGHEST DAILY MEAN	112	Sep 11	1973
LOWEST DAILY MEAN	0.01	Jun 17	1961
ANNUAL SEVEN-DAY MINIMUM	0.01	Jun 20	2.94
ANNUAL RUNOFF (AC-FT)	2520	5070	1983
10 PERCENT EXCEEDS	4.9	18	42
50 PERCENT EXCEEDS	3.1	4.1	6.7
90 PERCENT EXCEEDS	0.02	0.41	1.1

e Estimated

< Actual value is known to be less than the value shown